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The Recognition of Swine Fever.

Some time since we ventured to hint that the time was approaching when the Board of Agriculture would attempt the suppression of disease without the assistance of veterinary surgeons. As a sort of *reductio ad absurdam* the suggestion was made that the work would be done by lay inspectors guided and assisted by a copy of "Every Man his own Pig Doctor." We may confess that we did not then imagine the time was so near when the layman would glibly accept the position and without fear or doubt enter upon his duties. We fancied the Travelling Inspectors of the Board partially recognised the fact that they could not always diagnose swine-fever or other diseases; that they might have some doubts as to the methods of spread and periods of incubation of different diseases; that there were, even now, a few occasions on which the help of a veterinarian would be useful.

At the present time the only difficulty recognised by the Board in the suppression of contagious disease is in diagnosing the suspected case. Under the advice and direction of the late Director—Professor Brown—the Board has attempted to simplify this process by not trusting any local V.S., no matter what his position or experience. The viscera of dead pigs are sent to London that our only expert may decide. After this decision is given all difficulty disappears, and the lay inspector is entrusted with the rest of the proceedings. The Board seem to say to the veterinarians—like the advertisers of photographic cameras to the public—"you press the button, we do the rest." There is something beautifully simple (and mechanical) about this proceeding that directly appeals to a certain class of intellect. But the mechanical plays, or should play, a very second part both in art and science. By persons who know, it is strictly confined to the secondary position. Only amongst the veriest amateurs, and at the Board of Agriculture, does the mechanical supplant the scientific or the artistic. The order and place of things depends chiefly upon the intelligence and the vanity of the person who directs, and time inevitably discloses the value of such direction.

These observations have been forced from us by a report of a prosecution at Ilkeston under the swine-fever regulations. An owner of pigs was charged with negligence in notifying the existence of swine-fever on his premises. The Superintendent of Police gave evidence that he went and examined the pigs (doubtless as inspector) and found them "evidently unwell." This was honest, and suggestive of his fitness as inspector of diseased animals. Not so clear is his next step—"He at once declared the place infected." To close a man's premises and stop the movement of animals into or out of them because some pigs are "evidently unwell" seems to be rather a one-sided action. If, instead of a policeman, a veterinarian had acted thus some guarantee of probable danger would at least have been forthcoming to excuse the closing of the premises. After locking the door a veterinarian was sent for, the pigs were all slaughtered, and the owner summoned. If the defendant knew his pigs were infected he deserved to be fined, but if he knew only what the police inspector knew, that they were "evidently unwell," it is not so easy to see where the negligence came in. Swine-fever is not too easily diagnosed. The Board of Agriculture decline to believe the diagnosis of any veterinary practitioner in the country, and in support of this belief take steps which ensure that most outbreaks shall be prolonged for six or sometimes ten days before they are suppressed. Had the difficulty of diagnosis upon which the Board place such importance, and upon which they exercise all the caution that red tape and mackintosh bags can supply, had this difficulty been presented to the magistrates, possibly Mr. Hartley would not have been mulcted in about £5 for fine and costs. No difficulty was acknowledged. On the contrary the extreme simplicity of the whole thing was laid before them by one of the travelling inspectors. "Mr. Boyd Carpenter, an Inspector of the Board of Agriculture gave evidence that pig-keepers could ascertain the symptoms of swine-fever by applying at the nearest police station." This is really too rich. When in doubt ask a policeman. We might enjoy a laugh at Mr. Carpenter's expense were the whole subject not so serious. Mr. Boyd Carpenter clearly believes that if a man be supplied with "Every man his own pig doctor," or the less pretentious account of symptoms adopted by the Board of Agriculture, that no further difficulty exists. It never occurs to him that the symptoms described on paper require some technical skill and experience to decipher. It does not enter his head that in some cases hardly one of the symptoms printed may be visible, and that in others some symptoms not in the book may be more evident than those which are pathognomonic when detected.

We have not referred to this case merely to convict Mr. Boyd Carpenter of being more mechanical than scientific, but to point the moral that this ignorance is the great stumbling block to the success of the Board. Their regulations are drawn with one eye on political exigency and one on scientific information as to disease; they are carried out by so-called "executive" officers, mechanically instead of scientifically. The whole organisation is wrong way up. The scientific expert takes the second place, the lay-

man with red tape rules, and mechanical ideas takes the first place—the direction and control. This organisation came into force in January 1894, and has been one long exhibition of failure and extravagance During that time the Board of Agriculture has cost over a quarter of a million of money and swine-fever firmly maintains its position—or advances. Surely a return to the methods approved by the Duke of Richmond in 1878 is desirable and urgent.

Glanders in Glasgow.

A Glasgow paper contains a paragraph written apparently in the most simple innocence. It announces "the sudden appearance of glanders in Glasgow" and comments with serious anxiety upon this new animal plague which has just been discovered in the town. As a fact glanders has existed in Glasgow for at any rate twenty-years, and in the stables of one company chiefly. More than once the disease has been sent to London in horses purchased for work in the metropolis, and it is certainly time that some energetic action was taken by the authorities. Year after in the published returns of the Board of Agriculture, Lanark, appears as an infected county. In fact, Glasgow holds the same enviable position in Scotland that London does in England—the position of supplying the neighbouring counties with glanders. Until a fair compensation is paid by the authorities for notification, and until some properly organised system of inspection is adopted both towns will retain their proud pre-eminence.

ON ABORTION.

Abstract of paper read by Harry Olver, F.R.C.V.S., at the meeting of the National Veterinary Association.

In considering the above affection I propose to accept the interpretation usually given as distinguishing abortion from premature birth, viz., that the former is the expulsion of the fœtus before it is capable of a separate existence, whilst the latter, although born prematurely, is capable of such existence. Generally this applies, but it will be seen that in some cases, although the fœtus is born alive, it lives only a very short time, and properly comes under the designation of an abortion.

For the purposes of this paper I propose to treat of abortion under two heads, viz., non-contagious and contagious, and will first address myself to the non-contagious or sporadic form.

We take the period of utero-gestation in the cow normally to be ten months, or about 283 days. An abortion usually takes place from the 3rd to the 7th or 8th month.

Causes.—The causes of sporadic abortion may be very numerous, and each case requires separate enquiry; they may be divided into external and internal. Of external causes may be named atmospheric influences, such as cold, wet, thunderstorms, &c. Many cases are recorded of abortion consequent on exposure to cold and wet, especially to animals that are usually housed, although such influences apparently have no effect on animals that are habitually exposed to all weathers. Abortion after thunder storms may be ascribed to fright; injuries, accidental or otherwise, not unfrequently cause it; narrow doorways, by pressing the abdominal walls over the region of the uterus when cows are going in and out of sheds, especially when driven fast, is often responsible; over exertion is also recognised as a cause. Food and water no doubt not unfrequently produce abortion, and outbreaks of an enzootic character have been traced to them; the drinking of ice cold water, especially by animals that have been kept without it for some time, has been followed by frequent abortions, as recorded by Gellè and others. Putrid stagnant water has been blamed, and that contaminated by sewage—according to Mr. Clement Stephenson and others—is especially dangerous, but judging from my own experience, living in a district which is largely watered by a river so contaminated by sewage and other filth that it is little else than an open sewer, this is not appreciably the case. Abortion is very prevalent all over the district, but I do not think it more so in the animals partaking of this filthy water than elsewhere. Of food it is generally recognised that frozen turnips, potatoes, and other roots, and also those in a rotten state, are prejudicial to pregnant animals, and I have known several outbreaks that appeared to be pretty clearly traced to such a cause. Badly harvested, mouldy hay is also a factor, and it is known that wet, cold summers that produce such indifferent fodder are followed by abortion; but a supposed cause which is or has been perhaps more universally believed in than any of the foregoing may also be attributed to wet seasons, viz., ergotism. I do not attempt to deny that ergot may be an occasional cause, but I have never been able to satisfy myself that it is a common one, nor have I ever seen the administration of ergot of rye have the effect on the uterus of the cow that it is known to produce in other animals. The administration of drastic purgatives and some drugs are known to be dangerous, whilst surgical and other interference with pregnant animals should be avoided.

Of internal causes that may be enumerated, the general health of the mother is a most important factor. It is notorious that the various contagious diseases to which cows are subject are frequently followed by or accompanied with abortion. Any disease which produces a high temperature is likely to have this effect. Cows suffering from tuberculosis frequently abort; and I believe the male animal when diseased, or in a weakened condition at the time of copulation, predisposes to this end. Close, or in-and-in breeding has been blamed. Particular breeds of cattle have been under suspicion, but, in my opinion, without sufficient reason. One other cause should be mentioned, which, perhaps, may not improperly be termed mental. Close observers have long held that noxious, pungent and unusual smells are frequently followed by abortion; and especially well marked are cases of apparent sympathy. One animal aborts in a field or elsewhere; others crowd around in a very excited condition, especially heifers, and in a short time one or more of the herd abort also. I believe, consequent on my own observation, that mental or sympathetic causes are not unfrequent in sporadic abortion.

Hitherto I have particularly addressed myself to abortion in cattle, as to-day that perhaps is the more burning topic; but all domestic animals are subject to the accident. *Sheep* perhaps next to cows are most frequently affected; especially do they suffer from injudicious feeding and water supply.

Gellè quotes a cases in which one-fifth of a flock of ewes aborted after drinking from a pond—the ice having had to be broken before they could drink. Fright is generally supposed to be disastrous to pregnant ewes—a pack of hounds running through the pasture in which they are confined, or to be run by any dog or dogs, is commonly accepted as being productive of abortion, although such accidents (run by dogs) very frequently happen and no ill effects follow.

Sows, bitches, cats, all occasionally suffer; but these multiparous animals disprove what has sometimes been

stated as a fact, that the death of a fœtus leads to almost immediate abortion. It is by no means uncommon to find one or more fœtuses from these animals dead and decomposed, whilst the others are born strong and healthy.

In the mare also abortion is prevalent; but much more frequently than in other animals the expulsion of the fœtus takes place in the earlier stages of pregnancy, and except where carefully observed the mishap is never taken cognisance of. It is notorious that mares rarely carry to full time twin foals. Severe exertion, so frequently given to mares, is followed by abortion, and external violence also. Cauvet quotes a case in which abortion followed heavy kicks on the abdomen, in which he found enormous ecchymosis on the fœtal membranes opposite the injuries. Other observers quote similar instances. Pregnant mares depastured on hilly land are more frequently affected than in the reverse condition, and stimulating food is objectionable; whilst the nostrums of grooms who believe in physic are very often responsible for the disease.

Contagious or Epizootic Abortion.

At various times, and in different countries, the causes of sporadic abortion already given have been advanced to account for the apparently ever-increasing scourge in our herds, but no single one or all of them put together can satisfactorily explain it, and I believe the theory of contagion or infection must prove the true one. For very many years the belief that some specific organism or virus was responsible for the disease has been held by practical men; but our scientists will not be satisfied until they can isolate the microbe, and be able to assert positively that that, and that alone, produces the trouble. Such an investigation is now being conducted at the London Veterinary College on behalf of the Royal Agricultural Society of England. Scientists in other counties are also working on similar lines, and I hope the time is near at hand when the question of contagion may be definitely settled. Personally, long before I became a member of the profession, I felt quite satisfied that the disease was a contagious one, consequent on an unfortunate experience on my father's farm in Cornwall. He was a breeder of Hereford cattle, and for fresh blood went into Herefordshire, and bought some in-calf heifers. Soon after one aborted, others followed, and for years after we scarcely had a live calf in spite of isolation and other care. My father subsequently took another farm thirty miles away, and the cattle went also. On this previously untainted ground abortion continued, proving that not the land, building, or locality was at fault, but that the herd carried the disease with them. Similar instances are very numerous, and can be quoted *ad nauseam*.

Probably the first writer in this country to suggest the contagious nature of the affection was Youatt in 1834, although Clater and others, at a much earlier date, had spoken of it as sometimes assuming an epizootic character but had not, I believe, expressed the opinion that it was either infectious or contagious. Professor Barlow, of Edinburgh, in 1851 points out that "in all cases of abortion, before and after the expulsion of the fœtus there is a discharge of mucous and glairy fluid from the vagina, which he believed contained the virus of the disease."

It would be difficult to estimate the percentage of abortion in this country without a proper census being taken, but in the large breeding district in which I reside I think 20 per cent. of the whole would not be above the average.

That the experience of breeders and veterinary surgeons in other countries coincides with our own the following quotations will show:—

M. Ponneau, a farmer near Seautaise, took on lease a steading, previously devastated by abortion, into which he took 32 cows from six to eight months gone in calf. None of these aborted, he had 32 calves which he reared. The second year, out of 30 cows, 11 aborted from the fourth to the eighth month of gestation, and this continued for many years.

Near Provins, a woman owning four cows had for years lost all her calves through abortion. The cows and premises were accidentally burnt; with new cows and fresh premises the abortion ceased.

In the district of Chenelles, where abortion was unknown, a farmer who had occupied the same farm for twenty years, purchased from Chatillon-sur-Loing, twenty miles distant, but where abortion was known to prevail, an in-calf cow; in the same month she aborted, followed by another. Within two months these two were sold and replaced by others which also aborted, as did the other cows on the premises. These and numerous other similar cases point conclusively to the abortion being conveyed to the previously uncontaminated sheds by the freshly introduced animals.

If this is so, the question naturally follows: In what manner is the disease conveyed? and what is the contagium? In this particular we have evidence which is, I think, sufficiently complete for practical purposes, although not fully decisive from a scientific point of view. We have undoubted testimony from the researches of eminent veterinarians both of this country and the continent. that the insertion of some of the contents of the vaginal canal or uterus of an animal that has recently aborted into the genital organs of a pregnant cow is followed by the disease, which is, I think, indicative of its contagious character, although we may not yet be able to isolate the particular pathogenic organism to which it is due.

The case quoted by Dr. Johne, of the Dresden Veterinary College, strongly points to its contagious character, as well as supporting the theory that the active principle enters by the vagina. Dr. Johne says, "The outbreak took place in a byre in which the cows stood in two rows with their heads towards the central gangway; behind each row there was the usual gutter for the reception of the animals' dung and the flow of the urine, and the gutters were connected by a cross channel at one end of the byre. The fall for the urine was very slight, and the cows in lying down habitually fouled their hind quarters as a consequence. The evil began with the cow standing at the top of one of the rows, and in this animal the afterbirth was retained. With intervals of one or several weeks, each cow in that row subsequently aborted, the last to abort being the animal at the bottom of the series; after this the disease began at the bottom of the other row, and travelled up until all the cows had aborted." The conclusion drawn from these facts by Johne, being that the virus contained in the discharge from the aborted cows, or in the retained cleansing, found its way into the gutter, and that each cow received the infection by fouling her external genitals while lying down in the stagnant urine.

Professor McFadyean and Dr. Sims Woodhead, in their experiments at the instance of the Highland and Agricultural Society of Scotland, produced the disease by inserting material taken from the vagina of an aborted cow into that of the healthy ones. Franck, Zundel, Roloff, and other Continental veterinarians, acting on similar lines, produced the same results.

Brauer says that abortion may be expected in from 12 to 21 days after the insertion. Lehnert gives from 12 to 20 days. Trinchera produced it in from nine to 13 days.

To Professor Nocard, the eminent veterinary surgeon and director of the Alfort College, France, is, I believe, due the credit of first bringing the question of the contagiousness of abortion thoroughly to the front, and this

after most careful study, research, and experimentation, both in the cowshed and laboratory. His investigations, which were undertaken at the instance of the Agricultural Department of France, were reported on in 1886-7, and the conclusions he then formed have been generally confirmed by other workers since in different countries.

M. Nocard gave a decided opinion that the disease is not one affecting the cow generally—her health seems unimpaired—but it is one affecting the genital organs only of the mother; mainly it is a disease of the fœtus and its membranes. He bases these conclusions, 1st, on post-mortem examination of cows about to abort; 2nd, on post-mortem examination of cows on the point of aborting; and 3rd, on post-mortem examination of cows that had aborted the previous year, and had not since become impregnated. The outcome of these experiments was that samples of blood, milk, urine, &c., taken from a cow killed the same day after aborting a five-months-old calf was found to be normal; but fluid taken from the cotyledons and lining membrane of the uterus were found, when examined under the microscope, to contain large numbers of bacilli and micrococci. After forty-eight hours the broth cultivations produced the same organisms, whilst that from other portions of the cow did not produce any. Other post-mortems had the same results. Then a cow that had aborted several months and had refused the bull since was killed. Her viscera were also healthy; but the fluid scraped from the lining membrane of the uterus swarmed with living organisms, whilst the fluid was found to have an acid reaction; that of healthy cows is alkaline. The fluid from non-aborting cows of healthy herds were found to be free from any such organisms.

In a subsequent communication, 30th Aout, 1894, M. Nocard alludes to the researches of Professor Galtier of an outbreak of epizootic abortion at Placis, the property of the Marquis de Poncius, and says the disease differed from the one he investigated at Niévre, in 1885-6. He further says, "I have come to the conclusion that the outbreak at Placis is of a different type to that observed at Nièvre." Proceeding, M. Nocard says, "I wish to put on record an observation which shows that abortion may indeed be set up by several kinds of organisms."

I have quoted largely from the reported researches of M. Nocard because it appears to me the results of his investigations, and the conclusions at which he arrives, are strictly in accordance with the experience of myself and others who have seen a great deal of this disease as country practitioners; and in comparing his views with those of eminent veterinarians in different countries, there seems to be a general consensus of opinion that all the main facts of a clinical character point to the contagion entering by the vulva; also, I believe at present there is no one organism that can be charged with producing the disease, indeed the latest researches suggest that more than one organism may be responsible, and if it is found to be correct that the bacillus coli may take on pathogenic characters, it may help other investigators to arrive at a "true conclusion." One thing it certainly will impose on all who have to advise on the treatment or prevention of the disease, viz.: strict cleanliness and disinfection.

The experiments of McFadyean and Sims Woodhead have shown that ewes are the subjects of contagious abortion, as the insertion of the vaginal fluid from abortive cows into the vulva of healthy pregnant ewes produced the disease in these, as did similar experiments in those of the bovine species.

That mares are also the subjects of epizootic abortion there appears to be but little doubt. In this country, where mares (except in comparatively few places) are not kept in large numbers together, it has not been much heard of. It is stated that in the Mississippi Valley, in 1889-90, the losses in some places were estimated at 75 per cent.; in others one-half cast foal; and throughout the country enormous loss were sustained. In 1891 the disease appeared in South America, where similar ravages appear to have been the rule.

In the outbreak of infectious abortion amongst the mares in Montana, United States of America, inoculation experiments were made with cultures from the membranes and blood of an aborted fœtus, and were successful, not only in inducing abortion, but the foal of one which lived for a short time had disease of the knee and hock joints.

I think, therefore, that we may fairly assume that the contagious or infectious abortion of the cow has its counterpart in other domestic animals.

Acting on the assumption that the disease is contagious, then comes the all important part, how to treat and prevent; for treatment, we must bear in mind that the disease is one affecting the uterus and genital organs generally of the mother, and the fœtus with the placental membranes. On abortion taking place, the fœtus should be at once destroyed by fire or quicklime, or boiling water; the fœtal membranes removed and similarly destroyed; the womb to be irrigated once or twice a day with a dilute solution of carbolic acid or other disinfectant; the cow to be isolated and kept away from the breeding herd and fed, the tendency being to successive abortions. If, however, the cow is particularly valuable for breeding purposes, she should still be isolated, the uterus regularly irrigated for some weeks, and she should not be put to the bull for at least three months; and when served it should not be by the bull in general use in the herd, as there is pretty conclusive evidence on record that a bull serving a cow that has suffered from contagious abortion is liable to carry the disease to any healthy cow to which he may subsequently be used, the presumption being that the contagion remains on or about the penis of the male animal.

To combat an outbreak of abortion that has become established in a herd, thorough disinfection and isolation of the diseased animals is most important. First separate the pregnant from the non-pregnant cows, keeping all those that have aborted by themselves with separate attendant; empty each shed in turn, scrape the walls and floors, close up all the ventilators, and stove with chlorine or sulphur, swill the floors or drains with boiling water, and afterwards cover with lime; limewash the walls and, after the re-admission of stock, let the floors and drains each day be properly cleansed and disinfected, the particular disinfectant used being, I think, of less importance than through doing. All cows, whether pregnant or not, if admitted into the sheds, should be daily sponged with a disinfectant about the tail, vulva, thighs, &c. By some authorities syringing out the vagina with the same disinfectant is advised. With pregnant animals this causes considerable straining, and I think in them it may be dispensed with, but to non-pregnant cows it certainly should be used. All newly purchased cows should be put in a separate building, and if possible a separate premises, and kept apart until parturition has taken place, when they can be placed amongst the healthy stock if proved to be free from disease. It must not be forgotten that to clear a premises from abortion will probably take a year or more; patience therefore as well as thoroughness is required at the hands of the owner. It has been stated that the disease will of itself die out in the course of two or three years if no fresh cows are introduced, the idea being that the virus becomes attenuated, or, perhaps more probably, the cows become immune. Under certain conditions it might be advisable to take this into consideration, but it must also be remembered that many cows that have suffered from the disease become sterile, and the length of time lost to the owner, and the increasing age and the

consequent loss of value of the cow, are likely to militate against this course being adopted.

There are various formulæ given for the purposes of disinfection and sponging; carbolic acid one to fifty of water; a strong solution of sulphate of copper, and another very effective and inexpensive mixture is –

Soft Water	2 gallons.
Hydrarg Bichlor.	2½ drachms.
Hydrochloric Acid	2½ ounces.

In using these agents freely, it must not be forgotten that they are poisonous, and consequently dangerous to pigs, poultry, &c.

EXTRACTS AND NOTES.

A DISCUSSION ON THE REGULATION OF THE SLAUGHTER OF ANIMALS FOR HUMAN FOOD.

At the meeting of the British Medical Association: Section of Public Medicine.

I.—T. M. Legge, M.A., M.D. Oxon., D.P.H. Camb.

Dr. Legge opened the discussion by saying that in his opinion the proper person to act as inspector was one who had qualified in both medicine and veterinary science, subjects which were very much more frequently combined abroad than in this country. His only claim to open the discussion was that he had spent some time in several of the chief capitals of Europe in studying the methods of meat inspection adopted, and the most useful contribution he could make, therefore, would be to point out how far ahead of Great Britain Continental countries were in this matter. In his opinion, the abolition of private slaughterhouses and the erection in their stead of public slaughterhouses should be the first thing aimed at. Without it he believed a proper meat inspection could never be arrived at. The advantages to be derived from centralising the slaughtering of animals and the various processes incidental to it, such as gut scraping, fat melting, the extraction of the albumen from blood, etc., far outweighed the objections that were urged on the other side by the butchers in this country. The erection of public slaughterhouses had preceded as a rule the introduction of meat inspection on the Continent. For instance, the abattoir at Copenhagen had been in use for five years before the systematic veterinary control was introduced in order to break down gradually the prejudices of the butchers.

The control of meat inspection abroad was almost entirely in the hands of veterinary surgeons, and a class of highly trained scientific experts in this line was found there which did not exist at all in this country. He explained this partly on the ground that veterinary science had always been on a higher level on the Continent than in this country, owing to the State support given to veterinary colleges, to the fact that more freedom was allowed and more opportunity given for scientific research abroad than here, and, lastly, because public abattoirs, having existed for a considerable time, the need for a scientific control of the health of the animals slaughtered in them became more felt. It should be added that the contiguity of Germany to Russia, the breeding place of plagues and pestilences amongst cattle, had also had much to do with keeping up a high level in veterinary science. Not the least of the services rendered by public slaughterhouses under the control of veterinary surgeons abroad had been the very valuable knowledge that had been gained as to the extent of diseases amongst domestic animals, especially as regards tuberculosis. Abroad meat inspection appeared to be worked smoothly, whereas in this country few things gave so much trouble and anxiety to medical officers of health as a diseased meat prosecution.

A great defect in the law in this country under which the medical officer of health had to take action was that no indication was given him as to what diseases in animals made the meat unsound, unwholesome, or unfit for human consumption. In Germany the law of 1879 recognised only two kinds of bad meat—injurious to health (*gesundheits schädlich*), and bad or spurious (*verdorben*), but the local regulations adopted in the towns where public slaughterhouses had been established usually went much further than the law referred to, and chiefly determined the action of the veterinary inspector. Meat that was *verdorben* became therefore subdivided into (*a*) bad in the ordinary sense of the word and to be treated as equivalent to injurious to health, and (*b*) bad, but not so seriously bad that it might not be utilised as food, provided its condition was marked either as of diminished value (*minderwertig*), or as defective in quality (*mangelhaft*). The strict regulations under which much of the meat affected with tubercle had been condemned were relaxed in 1892 by a Ministerial decree making it permissible to regard as a rule as of first quality (and to be sold therefore without any restriction) the flesh of animals affected with tubercle (*a*) in one organ only, or (*b*) in the case where two or more organs were found affected, provided they lay in the same cavity and were not connected with one another by lymph channels or blood vessels belonging to the systemic circulation. In Berlin now enormous quantities of tuberculous meat were cooked in Rohrbeck steam ovens by which complete sterilisation was effected, and then sold at a much reduced rate.

After giving statistics as to the meat seized at the Berlin abattoir and elsewhere, Dr. Legge concluded by saying that the recent report of the Royal Commission appointed to inquire into the effect of food derived from tuberculous animals had come to very definite and startling conclusions which could not be without effect on public opinion. Public opinion was at the present time lukewarm on the subject, and even the medical profession had not devoted the attention to the subject of the transmissibility of tubercle to man through meat or milk that it deserved. There was too the undeniable hostility on the part of the various meat traders' and butchers' associations to anything that was likely to drive the control of the trade by centralisation into the hands of a few large firms.

But the evils of the present system adopted in this country were so apparent that he hoped the whole question of meat inspection would before long be made the subject of a Royal Commission.

II.—R. Sydney Marsden, M.B., D.Sc. (Edin.) F.R.S.E. M.O.H., Birkenhead.

Dr. Marsden said that the consideration of the subject naturally divided itself under three heads, namely:

1. Treatment of cattle before slaughter; lairage accommodation, etc.
2. Method of Slaughter and dressing of animals.
3. Treatment and inspection of the carcass after dressing.

1. Treatment of Cattle before Slaughter.

Animals should be brought to the slaughterhouse as quietly as possible. Proper lairage accommodation should be provided, in the form of enclosed sheds, with good top light and ventilation (side ventilation was too cold in the winter months).

The surface of the floor should be flagged and channelled with a good fall from the head to the rear, so as to keep the standing always dry, and all drains should be

outside the building. A chain and perpendicular rod with movable ring that could slide up and down should be provided for each animal (in the case of cattle), and a water trough at the head of each stall. The pens for sheep and pigs should not be too large. The animals should be provided with a bed to lie on so as to keep them warm; they would then bleed better at the time of slaughtering. Animals should be kept here at least twelve hours without food before slaughtering, and there should be no overcrowding.

The standing pens (if separate from the lairages) where the cattle were placed immediately before slaughter should not be in view of the slaughtering, as animals were easily frightened by the smell of fresh blood, and fright had a deleterious effect upon the "keeping" qualities of the meat. The surface of these pens should be flagged and rough to give a good foothold.

The slaughterhouse should be lofty, with good light and ventilation from the roof; the surface of the floor flagged and rough. There should be a plentiful supply of water, and rails and hooks for dressing purposes. The ring to which the animals were tied when poleaxed should be fixed in the wall about 2 feet from the floor, and there should be proper receptacles for the garbage, which should be removed immediately after the slaughter of each animal, and the surface of the floor washed.

2. Method of Slaughter.

The animals should be poleaxed and pithed without delay, stuck immediately after pithing, and the body well bled. The heart went on beating for some little time after pithing. After skinning the carcass should be wiped with a damp, clean cloth, using as little water on the carcass as possible; if this precaution were carried out the flesh would appear brighter, and would not "turn" so soon. No blowing or stuffing of the carcass should be permitted, and when the dressing was finished it should be at once run into the cooling house and numbered. All offal should be trimmed and washed when taken from the body, and when finished it should be numbered to correspond with the carcass, and hung up in the slaughterhouse.

3. Treatment and Inspection of the Carcass.

All carcasses and offal should hang in a properly ventilated, light, clean, and cool cooling house for twelve hours after slaughter to cool. It was well for the meat inspector to be present if possible during slaughtering. Most diseases showed themselves at once, and it was important that he should see the diseased parts before anything had been done to alter their appearance. But there were cases in which the disease was more noticeable after the carcass and offal had cooled; it was therefore important that they should be inspected both before and after cooling.

III.—John F. J. Sykes, D.Sc., M.D.,
M.O.H. St. Pancras.

Dr. Sykes said that diseased meat must be prevented from being distributed for food. This applied equally to home-killed dead meat and to imported dead meat. The best time to judge of the health of food animals was at the time of slaughtering when they could be examined during life as well as after death, but above all when the internal organs could be examined together with the carcass and at the same time. In order to facilitate the inspection of home-killed meat the aggregation of slaughterhouses was desirable. To spare pain to food animals and inconvenience to traffic the aggregation should be close to railway depôts, and in the interests of public health the aggregation should take place outside large towns and well removed from populous places. London being in reality a collection of cities would either require the aggregation of its slaughterhouses to take place at separate points of the compass in the suburbs, or that all meat sent to London should be dead meat, the home meat being killed at public slaughterhouses established on the lines of railway either in the outskirts of provincial towns or in rural districts. In spite of the precautions indicated it would still be possible to foist upon the market meat of animals dying of disease. In order to prevent this and to take away the inducement to profit by the sale of diseased meat it would be necessary to institute (1) the systematic inspection of milch cows at periodical intervals by veterinary inspectors; (2) the purchase at the public expense of diseased animals and meat before exposure for sale at a price that would materially relieve the owner from bearing the whole loss—in other words, paying compensation; (3) or failing the adoption of this course the compulsory examination and marking of all meat and the prohibition to sell meat without the recognised token or mark. As to importation, imported food animals were killed at the ports of debarkation, and were examined before, during, and after slaughter. But imported dead meat escaped all form of examination, and the only measure of control possible was examination before, at, or after disembarking and the affixing of some token or mark.

IV.—Surgeon-Major George A. Poole, M.D.

Surgeon-Major George A. Poole considered that veterinary surgeons were the proper inspectors of meat, and that they should primarily see the carcasses of the animals that were slaughtered. In case of a second opinion being wanted, the medical officer of health should be consulted. All private slaughterhouses should be abolished, as they were, generally speaking, centres of cruelty and filth, from which in many cases diseased meat often emanated.

V.—Alfred Hill, M.D.,
M.O.H., Birmingham.

Dr. Hill said he had much pleasure in supporting the main points alluded to in Dr. Legge's paper. He was pleased to find that more moderate views prevailed at present on the subject of meat affected to even the slightest extent. A year of two ago a number of gentlemen advocated the rejection of all such carcases on the theoretical views formed on bacteriological observations and inferences. Such an extreme view was not in accordance with experience, with the practice of the Governments of Germany, of France, nor with that generally of this country. He quite agreed that in the interests of public health generally, not to mention the avoidance of unnecessary suffering on the part of the animals slaughtered, private slaughterhouses should be abolished and be replaced by public abattoirs.

VI.—E. J. Slade-King, M.D.,
M.O.H., Ilfracombe.

Dr. Slade-King observed that if a medical officer of health did not understand the inspection of meat his education was incomplete; veterinary inspectors would encounter the same difficulties as the medical officer of health met with, and it was useless to introduce any other incompetent set of men to deal with inspection. The chief question was how to get rid of private slaughterhouses. The question of compensation stood in the way, and the British butcher was as tenacious of his rights as the publican was of his, and any slaughterhouse local veto Bill without compensation would have no chance of surviving.

VII.—Brigade-Surgeon-Lieutenant-Colonel PRINGLE, M.D., Blackheath.

Dr. Pringle pointed out that, after the experience he had acquired of the practice of slaughtering animals in slaughterhouses or other places, during his service in India, where animals were killed according to the religious custom of the East, that is Levitical, he trusted that perfect arrangements were made in all slaughterhouses for the careful bleeding of the carcase, as on this depended in a greater measure than was generally supposed, not only the flavour of the meat, but its keeping possibilities.

DR. LEGGE'S REPLY.

Dr. Legge, in reply, congratulated the Section on the excellent discussion which had taken place. He thought that if medical officers of health did learn something about the diseases of animals by attending for some time at a veterinary college there would be less objection to their exercising the functions of an expert on meat. He referred, in reply to a remark by Dr. Sykes, to what was done by the Danish Government in inoculating herds of cattle with tuberculin in order to do something to eradicate cases of tuberculosis from them. He concluded by pointing out the difficulties there were in the way of abolishing private slaughterhouses.—*Brit. Med. Journal.*

THE PATIENT'S PROSPECTS IN SURGERY.

Mr. Jonathan Hutchinson, in his address on Surgery to the British Medical Association, said:—

The suggestion which I have made as to lithotrity—that it is a very successful and happy procedure in the hands of a man well practised in its performance, but much the reverse in those of a novice—leads on to the remark that there are many others in the same position. There are operations which are good in themselves, and based on sound rules of surgery, but which are yet not for every surgeon's knife. Concerning many it is true that anyone decently trained on the dead body, and clever with his hands, can do them just as well as the experienced operator. Amputations, excision of tumours, resection of joints, ligature of arteries, and many others come into this category. Respecting these the old adage which declares that a barber learns his trade by practising on fools does not apply. Some of them are besides of such a nature and so rarely required that no one can possibly obtain much personal experience. Others there are, however, respecting which I cannot but think that the canon of surgery should be that unless the skilled diagnostician and the skilled manipulator are at hand it is to the patient's advantage that they should be avoided altogether. In that category I place with many others operations on the gall bladder and kidney, those for cancer of the bowel, laparotomies for obstructions, and trephining for abscess or tumours of the brain. In most of these the patient has some chance of recovery if he be left alone, whereas he has almost none if an unskilled operator take the knife in hand.

The estimate of the patient's chance of recovery and prospects of life without operation have been strangely neglected by some zealous operators of the present day. To put it in other words, in order to justify the plans which they recommend, they have, as it seems to me, drawn far too black a picture of the alternative probabilities. When Sir Everard Home's big silver catheter for enlarged prostate was laid aside, and we found that a soft rubber or gum flexible tube could be got in just as easily, and that the patient could be easily taught to use it, we were some of us sanguine enough to believe that the horrors of the senile prostate were pretty much at an end. For myself I may confess that I think so still.

Few, indeed, have been the cases in which of recent years conditions have presented themselves in connection with enlarged prostate which have seemed to require any other measures than the flexible catheter and the irrigator, and many are those which I could quote in which patients who for a time suffered severely are now leading comfortable lives. Yet we are gravely asked to believe that when a man has had his testes removed, and subsequently passes his water better than he did, the improvement is consequent on the operation. We might as logically attribute it to his having had his hair cut. Operations upon the prostate itself stand on a different footing, for it is obvious that, if the patient survives the excision of the middle lobe, he is as a matter of mechanism in a better position than he was. These procedures are, however, in themselves dangerous, and I submit that the nature of the disease is not such as to demand them.

Many years ago I was the consultant in a case in which a lady had a cicatricial stricture of the œsophagus. We had tried bougies most carefully without success. She could swallow nothing, and death by starvation seemed imminent. The hour for the operation of gastrostomy was accordingly fixed and all preparations made. On the preceding evening I made, under an anæsthetic, a last attempt to get a small instrument through the stricture. I did not succeed, but very shortly afterwards the patient drank some milk. Next morning she could drink better, and I gladly agreed to defer the operation. She subsequently got well without it, and lived in comfort, on fluids, for some years.

About the same time I had in the presence of all my hospital colleagues a patient on the operating table in whom I purposed to open the abdomen for the relief of abdominal obstruction. It was a rare procedure in those days, but I was then an eager operator, and it was with much reluctance that I yielded to the representations of my colleagues, who urged that the case was too far advanced, and that if I proceeded the patient would probably die on the table. This patient recovered, the bowels acted the same day, and she regained good health. These two cases made a great impression upon my mind as to the possibilities in apparently hopeless conditions, and that impression has been deepened by many others which have occurred. Respecting laparotomy for intestinal obstruction of unknown causation, whilst I feel very certain that it should be shunned by all excepting the specialist, I do not feel sure that it is legitimate even to him. Here and there I admit a patient has recovered—a band has been divided, or a gallstone excised, or a kink untwisted. As to the ratio which exists between the survivals and the deaths, we have, however, no statistics whatever. It is a subject in which I have through all my professional life taken a keen interest. These operations were done in my youth. Although more frequent now than formerly, they are no novelties. As a student, I collected such facts respecting them as I could get, and I collect them still.—*The British Medical Journal.*

Fiendish Cruelty to Cattle.

The *Dublin Express* states that at Macroom, County Cork, Petty Sessions, a farmer named Cronin was charged with attempting to destroy the cattle of a man named Sullivan, which were grazing on an evicted farm, by placing cabbage leaves for them to eat, in which were concealed 145 pins, 30 needles, 8 portions of hairpins, and a nail. The police stated that similar pins were found in prisoner's house, and the cabbage leaves fitted to stumps in his garden. Some of Sullivan's cattle died recently, and an examination showed death was caused by inflammation, set up by swallowing pins and needles. Prisoner was remanded.

ADULTERATION OF HONEY AND OLIVE OIL IN FRANCE.

Interesting letters have been exchanged between the French Minister of Agriculture and M. Naquet, the well-known deputy with a pharmaceutical experience, regarding the suppression of adulteration of certain articles of food, and especially of honey and of olive oil. M. Naquet had intended to interrogate the Minister in the Chamber on the subject, but the length of the discussion on the alcohol monopoly prevented this course. In his letter opening the question he draws attention to the fact that besides being used in pharmacy, and as an article of food, honey serves also for making gingerbread, as well as certain sweets and fermented liquors. Unfortunately, adulteration has caused the article to fall below its real value, and the industry of apiculture is threatened with ruin as a result. The deputy asks that, if there is no other means of preventing the fraud, a law should be passed prohibiting the adulteration of honey and olive oil, similar to those already existing in respect of wine, butter, &c. As regards olive oil, the most varied mixtures are now being sold under that name. M. Naquet suggests that the law should contain two penalties, one the most severe, against adulteration injurious to health, and the other for merely commercial falsification. In reply, the Minister draws attention to the fact that glucose syrup is the article most in use for adulterating honey. The scientific processes for discovering the fraud are, he says, well known, and it can always be detected by an experienced chemist. The law of Germinal, Year XI., and the decree of 1859, enable a Commission of competent men, chosen amongst the members of the Council of Hygiene, to inspect the purity of products offered for sale by pharmacists, druggists, and grocers, at least once a year, and, in fact, as often as may be required. Prosecutions follow these inspections when necessary. Circulars are issued from the Ministry of Agriculture each year regarding any special articles that require particular attention, and a special note will be devoted to honey in the next issue. Similar protection is given to olive oil by a law passed in 1884. This trade is far more important than that of honey, and it has suffered much prejudice by the substitution of cotton, colza, nut, and other oils of inferior quality. It appears that in 1894 three chemists of high standing—M. Muntz, Professor at the Agronomical Institute; M. Milliau, Director of the Technical Laboratory at the Ministry of Agriculture; and M. Durand, Director of the Central Chemical Laboratory at the French Admiralty—made researches as to the processes to be employed for detecting adulteration in the various kinds of olive oil. They found that most of the old processes of analyses, based on colouring and on ordinary reactions, frequently gave inexact results. As an example, the pure Tunisian oils were on one occasion declared to be adulterated. The chemists in question found that the only true way to proceed was to test the oil after it had been filtered. They suggested a number of analytical processes. Amongst other points to be considered they mention the density, solubility in alcohol, the sulphuric acid reaction, the congealing and melting points, the saturation of the fatty acids, &c. Also the application of special tests, such as nitrate of silver, hydrochloric acid and sugar, &c. The reply of the Minister terminates by saying that the existing laws offer all possible guarantee, and if the suppression of fraud does not receive more support in the law courts, it is often due to the fact that the experts do not always bring forward certain and incontestable proof.—*Chemist & Druggist.*

THE GUINEA WORM.

Dr. Patrick Manson gave a demonstration on the Guinea-worm. After a brief description of the anatomy of Dracunculus medinensis or guinea-worm, Dr. Manson pointed out that the views formerly held with regard to the way in which this parasite obtained access to the human body were erroneous. He showed that the guinea-worm parted with her embryos before she quitted the human host, and that the process could be provoked by simply pouring a little cold water on the limb in the neighbourhood of the guinea-worm ulcer. The water seemed to act as a stimulant to the worm, which could thus be induced to contract and expel the young through her mouth, the uterus being prolapsed for an inch or two. In this way Dr. Manson obtained a large supply of embryo guinea-worms and repeated Fedschenko's experiments with cyclops quadricornis, confirming the results of the Russian naturalist and somewhat extending them, and showing that the English cyclops was an efficient intermediate host of this parasite. The young guinea-worms on escaping from the uterus of the parent swim about in the water until they encounter a cyclops. They then attack the crustacean, boring their way between the ventral plates until they get into the body cavity. Here they move about quite freely, as many as ten or twenty lying together in the body cavity, and not apparently inconveniencing the cyclops. The embryo now casts its transversely striated integument along with the swimming tail, the latter giving place to a short conical stump. Later a second moulting takes place, eventuating in a tripartite tail, increase of size, and a somewhat more elaborate alimentary canal. The parasite enclosed in the cyclops is then transferred, probably in drinking water to the human stomach. From the stomach, after digestion of the cyclops, the guinea-worm is supposed to work its way into the connective tissues of its host, and in the course of time to attain sexual maturity. Dr. Manson deprecates interference with the guinea-worm until she has emptied her uterus of embryos. He pointed out that she then tends to come out spontaneously. He also thinks that the new treatment by injection of perchloride of mercury solution in the neighbourhood of the guinea-worm sore may be useful in killing the worm and procuring her aseptic absorption. Four microscopic preparations were exhibited and also some lantern slides, showing the embryo guinea-worm in its free state, in the body cavity of cyclops, and at the conclusion of metamorphosis, seventy days after the parasite entered its intermediate host.—*The Lancet.*

Feeding Horses Automatically.

The Maine man who rigged up a common alarm clock so that it would open a sluice and let some grain fall into his horse's feeding box at an early hour in the morning, is doubtless an original inventor in one sense of the term; but the plan is in operation in New York and other cities on a still larger scale. One clock, specially designed, is made to operate from twenty to forty clocks in a single stable, and perhaps a dozen stables are now so equipped. These are mostly owned by milk companies. It is often desirable to have horses fed at a very early hour, and this plan makes it possible to give them grain, or any other dry stuff which can be stored for hours and then dropped through a hopper, long before the man who must clean and harness them is out of bed. The boxes that contain the food over night have trap-doors in the bottom, and are provided with suitable spouts discharging into the manger. From each trap-door a wire runs to the clock, which is arranged to liberate at the designated hour a heavy weight that moves a lever to which all these wires are fastened.—*Irish News.*

PROSECUTION BY THE ROYAL COLLEGE OF VETERINARY SURGEONS.

John Fudge, of Wincanton, was summoned, at the instance of the Royal College of Veterinary Surgeons, for that he,on March 28th, not being on the Register of veterinary surgeons, and not holding at the time of the passing of the Veterinary Surgeons Act, 1881, the veterinary certificate of the Highland and Agricultural Society of Scotland, did unlawfully use and take the name, title, addition, or description of veterinary surgeon or veterinary practitioner.—Mr. T. D. Shaw prosecuted, and Mr. Trevor-Davies defended. Inspector Greenwell, R.S.P.C.A. said on March 28th defendant gave evidence in a case of cruelty at that court, and in reply to the Chairman's question as to what he was, replied "veterinary practitioner."—The Chairman interposed with the remark that he should have thought he would have asked Mr. Fudge whether he was a veterinary practitioner, and that Mr. Fudge merely assented. The witness denied that such was the case, and in reply to Mr. Trevor-Davies said he did not know that defendant was only managing a branch business for Mr. Symes, veterinary surgeon, of Yeovil.—Mr. A. C. Coles, reporter on the staff of the *Western Gazette*, gave confirmatory evidence.—For the defence Mr. Trevor-Davies characterised the case as of a harsh character. The whole charge against his client was that he made the statement complained of on that particular day in court, but the prosecution had not contended that his client had held himself out to the public that he was a veterinary practitioner. Defendant had never in any shape held himself out to the public as a veterinary practitioner, but on that day for some reason or other he apparently did use the words complained of. For 21 years defendant had been an assistant to Mr. Symes, of Yeovil, and his brother before him. Bills went out in Mr. Symes's name, and Mr. Symes went to help defendant on any cases. The case was a very thin one—(the Chairman: It is)—and he would not admit that his client had been guilty of anything within the meaning of the Statute. His client never intended to wilfully mislead the Bench.—The Chairman: No, certainly not.—After consultation Mr. Rogers said in his opinion the case should never have been brought into a court. The evidence showed that the words "veterinary practitioner" were used by Mr. Fudge in that court, which was a public place. The Bench was unanimous that the case should never have been brought before them, and considered there was no intention on the part of the defendant to deceive the Bench when he said he was a veterinary practitioner, but, as it was an offence within the Act, they fined him 1s., each party to bear their own costs.

A PROFESSIONAL MAN.

On the Deputy Coroner for the city, Mr. Louis J. Aitken, taking his seat in court on August 26th, a gentleman rose in the jury box and asked if he was not, as a professional man, entitled to be excused from serving.

The Coroner: What are you?

Applicant: I am a veterinary surgeon, and I have several cases waiting for me at home. I am a professional man, and I question the right to summon me. According to my Act of Parliament I ought not to serve.

The Coroner: If you will call my attention to any Act of Parliament which says so I will excuse you. Have you got it here?

Applicant: I haven't got it here; but I'm a professional man.

The Coroner: I dont dispute that, but I want to see the Act of Parliament which entitles you to be excused. I'll give you time to bring it.

Applicant (loudly): It'll be in your Act. I may not be able to find mine to-day. I'm only asking for my rights. I'm a professional man.

The Coroner: Listen. I don't want to be lectured by you if you are. I'll let you go home for the Act of Parliament which gives me the authority, and for your diploma. Has this point ever been raised before?

An Officer: No, sir. He is not summoned on his qualification as a veterinary surgeon. He is described in the list as a shoeing smith.

Applicant: I may not be able to find the Act to-day; but I'm a professional man. (Laughter).

The Coroner: Well, I'll let you go now, and I'll have you summoned for Wednesday, when you must bring the Act of Parliament. If you don't find it by Wednesday, I'll have you summoned for Friday, and so on each court day till you find it.

Applicant: Very well; that's reasonable. I'll find it. But I only want my rights. I'm a professional man. (Laughter).

The gentleman then left the court.

On August 28th, after the Deputy Coroner for Manchester, Mr. Louis J. Aitken, had taken his seat in court, a gentleman, named John Holding, said he wished to apologise to the Coroner. On Monday he had claimed his right to be excused from serving on the jury on the ground that he was a veterinary surgeon, and therefore a professional man. He had searched for the authority which gave him the right to be excused, but had been unable to find any. He admitted that he had no diploma, and now asked the Coroner to excuse him on the grounds of urgent business, old age, and deafness. He was nearly seventy.—The Coroner remarked that the age limit did not apply to coroners' juries if gentlemen were still on the jury list; but even then Mr. Holding was only sixty-one. As a matter of fact Mr. Holding was not summoned for to-day; but he would be summoned for one day next week when he would have the opportunity of vindicating his conduct on Monday.—*Manchester Evening News.*

[We do not find this name on the Register of Veterinary Surgons.—ED.]

A Hair-ball in the Human Stomach.

Veterinary surgeons are tolerably familiar with the occurrence of a mass of hair, chiefly in the form of a ball, sometimes several inches in diameter, within the stomachs of horses and cattle, formed there by the aggregation of a number of hairs taken into the stomach with the food from time to time, and there remaining because the gastric juice has no power to dissolve them. But it is quite an exceptional occurrence, if not altogether unique, for a similar ball of hair to be found in the human stomach. Yet such has happened with a girl in Cornwall, who has acquired the bad habit of biting off the ends of her hair, which she swallowed, until at length she had accumulated a mass of hair in her stomach, weighing no less than 5lb. 3oz. As the girl was only 20 years of age, there was in this internal bolus all the necessary stimulus for life long indigestion, which, however, she has happily been spared through the refinements of modern surgical skill, with apparently very little harm to the patient. An incision was made through the outer wall of the stomach, when the ball of hair was discovered and removed, the surgeon performing the operation being previously unaware of the nature of the object lodged in the digestive cavity. This curious extraction has been placed in the Royal College of Surgeons, as a standing warning to ladies not to eat their own heads off, or rather to leave thereon their natural covering.—*Sheffield Telegraph.*

OUTBREAK OF GLANDERS IN GLASGOW.

An Alarming Outlook for Horse Owners.

Great excitement and alarm prevails among the owners of horses in Glasgow on account of the sudden appearance of glanders in the city. The much dreaded disease is said to have developed to an extraordinary extent within the past few weeks, especially in one of the largest stables in the city. In this single stable, which contains 170 horses, no fewer than 23 have had to be destroyed during the present month. The disease, as is well known, is fatal in most cases, and is unfortunately very contagious—indeed, may be communicated, not only from horse to horse, but from horse to man. The general public are closely affected by this outbreak, as in the various departments of the Corporation service something like 5000 horses are owned, and it is to be hoped that the authorities will make a vigorous and determined effort to stamp out the disease, and that all horses to which the least suspicion can be attached will be promptly isolated, and destroyed whenever the necessity arises.—*Glasgow Evening News.*

Swine Fever at Ilkeston.

John James Hartley, publican, of Smalley, was charged at Ilkeston Sessions on August 29th, with neglecting to report the presence of swine fever on his premises on August 10th.—In consequence of information he received Superintendent Daybell visited defendant's house, and found a number of pigs evidently unwell. He at once declared the place infected. A veterinary surgeon was called in, and the pigs were all slaughtered.—Mr. Cockburn, veterinary surgeon, and Mr. Boyd Carpenter, an inspector of the Board of Agriculture, gave evidence, the latter stating that pig keepers could ascertain the symptoms of swine fever by applying at the nearest police station.—Mr. Searby defended, and urged that defendant did not know the symptoms of swine fever, and thought the pigs had only a cold.—Fined £2 and £1 9s. 6d.—*Notts Express.*

A Learned Doctor.

The following is taken from a recent number of the New York *Medical Record*:

"There is a quaint and original doctor located on one of the islands of Puget Sound. He advertises in posters and placards printed in a home outfit. In one of his announcements he says: 'Legs and arms sawed of while you wate without pane. Childbirth and tumors a specialty. No odds asked in measles, hooping cough, mumps, or diarrear. Bald head, bunions, corns, warts, cancer and ingrowing tow nales treated scientifically. Coleck, cramps, costiveness, and worms nailed on sight. Wringworms, pole evil, shingles, moles, and cross eye cured in one treatment or no pay. Private diseases of man, woman, or beast eradicated. P.S. Terms, Cash invariably in advunce. No cure, no pay. P.S. (Take Notis.) No coroner never yet sot on the remanes of my customers, and enny one hiring me doan't haf to be good layin' up money to buy a gravestone. Come won, come awl.' This man is said to do a good business, although you would not expect it, and his patients say he cures diseases, and does it thoroughly and quickly."

The International Veterinary Congress.

Mr. A. C. Cope, chief veterinary officer of the Board of Agriculture, and Professor John F. M'Fadyean, Principal of the Royal Veterinary College, will attend on behalf of the Board at the meeting of the sixth International Congress of Veterinary Medicine, to be held at Berne from the 16th to the 21st inst.

"VETERINARY MEDICINES; THEIR ACTIONS AND USES.

When a book reaches its eighth edition little need be said in its praise. It has visibly received the approbation which is most emphatic and most satisfactory.

Finlay Dun's "Veterinary Medicines" was first published in 1854 and it may be safely affirmed has supplied most of the knowledge of materia medica possessed by at least one half of the veterinary profession.

The new edition is quite up to date and includes the recently discovered antiseptics and antipyretics, and other new remedies. It also enters more fully into the action and uses of drugs as elucidated by the more systematic researches of modern therapeutic experimenters.

To veterinary students the book is quite indispensable, and the veterinary practitioner who has not yet obtained this last edition does himself an injustice. There is a good index, and the publisher (D. Douglas) has done justice to the author by turning the work out in the best style.

INSTRUMENTS, ETC.

Dean's Thermometers.

The box of half a dozen clinical thermometers which Mr. Dean offers practitioners for 11/6 is a distinctly valuable and cheap article. He claims for them "excellence and exactitude" and our experience confirms his claim. We can safely say there are no better and cheaper three-minute thermometers sold.

Fletcher's "Dog Pill Carrier."

This is a curved metal rod, expanded and cup-shaped at both ends. The cavity at each end differs in size and so is suitable for the different sizes of pills. The ordinary method of giving a dog or cat a pill is to hold the head back with the mouth forcibly opened, to drop the pill into the mouth and push it back into the pharynx with the finger. Sometimes the pill doesn't go, and sometimes the operator's finger is bitten. With the "carrier" all this is altered. A little lard, butter, or vaseline, is applied to the cup, on this the pill is stuck and so carried to the gullet of the patient. It is simple, harmless, and cheap, and has been registered by Messrs. Fletcher & Sons, Veterinary Surgeons, Sheffield.

Balls and Keep's "Wedge Pad."

This is one of the cheapest and most effective rubber pads to prevent slipping. It possesses the advantage that it does not cover up the whole foot. When properly applied it keeps its position under the shoe, gives a good grip and wears well. It is made in five sizes to fit any horse. The agent is Mr. W. R. Favell, 3 Featherstone Buildings, London, W.C.

ARMY VETERINARY DEPARTMENT.

Extract from *London Gazette*, Sept. 3rd, 1895.

W. O. C. Dawson, gent., to be Veterinary-Lieutenant in succession to Veterinary-Major C. W. Gillard, placed on temporary half-pay. Dated Sept. 4, 1895.

The undermentioned veterinary officers will embark in transport "Victoria" at Portsmouth on 10th inst.:—

Veterinary-Captain K. Lees, Veterinary-Lieuts. E. W. Shore, and F. U. Carr, for a tour of service in India.

Veterinary-Lieut. A. S. Trydell, on return from sick leave of absence.

Veterinary-Lieut. W. E. Russell for a tour of service in Egypt.

PURCHASE OF ARMY HORSES IN THE COUNTRY.

Viscount VALENTIA (Oxford) asked the Parliamentary Secretary to the War Office whether any, and, if so, how many, horses for Army purposes had, during the past year, been bought from the breeders or farmers in country districts.

Mr. BRODRICK (Surrey, Guildford).—During the year 1894-95, 503 remounts were purchased from 87 private owners and 1,116 remounts were bought from dealers.

Major RASCH (Essex, S.E.) asked whether the War Office would encourage horse-breeding in the country districts by advertising the fact that they would give £40 for a horse.

Mr. BRODRICK thought the question of the hon. and gallant member would give the publicity he desired.
—*The Times.*

CORRESPONDENCE.

ANÆSTHETICS AND THE STANDING OPERATION.

SIR,

I have on several occasions availed of the opportunity which discussions at veterinary medical associations offer to present the very decided views I hold in favour of the use of an anæsthetic when performing major operations upon any of the lower animals, especially in orchotomy. It was not my intention to have troubled you with any communication on the subject at present, partly because my views are pretty well known already, and partly because the discussion appearing under this head in your columns was very ably initiated by Mr. Parr and, as I considered, irrefutably proved by himself and several other gentlemen in favor of the use of anæsthetics; the arguments—if such they may be designated—on the other side appearing to me to be very weak and altogether unworthy of the spirit of humanity which I venture to think should actuate every veterinary surgeon. There is however, one point arising out of the various communications on the subject that seems to me worthy of earnest consideration; but before referring to it, I may say in passing that the very able article which appeared in *The Veterinary Record* some two weeks ago in which the case was cleverly summed up for and against the views propounded on either side, it seemed to me the writer clean cut the ground from under the advocates of the standing operation. In so many words it affirmed that all veterinary surgeons in performing surgical operations had to consider 1st, their own personal safety; 2nd, the safety and well being of the patient to be operated upon; and 3rd, the interests of the client to whom the patient belonged.

I do not propose to discuss the merits of the two methods of operating, but will content myself by reminding any whom it concerns that almost every advocate of the standing operation admits that occasionally—say once in one hundred times—an animal either throws itself down or plunges and gets away from the man who is at his head under which conditions he is seen running about with an exposed testicle. Now I maintain that, apart from the *main objection*, if such a possibility exists and by other means the risk can be obviated, the duty of the veterinary surgeon is clear, and that is never perform the operation in the standing position, for evidently the operator exposes himself to the unnecessary risk of accident to say nothing about the humiliation of failure which such an exhibition exposes one to; the patient operated upon is subjected to unwarrantable torture, and the client to the possibility of losing his animal.

When the advocates of the standing operation aver that the mental sufferings of a horse that is cast and put under the influence of an anæsthetic can possibly compare with the excruciating pain involved necessarily in the manipulation of so delicate and sensitive an organ as the testicle, they seem to me to put themselves clean outside the bounds of discussion; if they doubt it, let them try the effect upon a dog, an animal which—unlike a horse—almost invariably testifies by unmistakeable indications whether it suffers pain or not; or better still let them try upon themselves by subjecting to a slight blow on the testicle. Probably however, they would object to this and calm their consciences by endeavouring to believe that the testicles of a horse and a man are not equally sensitive. Where they get such an idea from it is difficult to discover, certainly not from physiology.

That the standing operation is more expeditious there is no denying; the risk of injury attendant upon careless, rough and ready methods of casting is easily obviated by the adoption of the American system with which every country practitioner in his own interests ought to make himself acquainted. The main thing however is, that no operation involving considerable pain ought to be performed without the aid of an anæsthetic, and it is very difficult to understand how any man with a knowledge of physiology and who claims to possess feelings of humanity in his breast, can subject an animal, willingly, to suffering that might be obviated.

Now for the point alluded to in the earlier portion of this communication. Several of the advocates of the standing operation affirm that their clients demand that the operation shall be performed standing, otherwise someone will be sent for who will perform in this manner. I am painfully and regretfully aware that there are some men in our profession who are mean and contemptible enough to avail of such an opportunity of drawing away a client from a professional brother, but I don't believe that in the long run a straightforward, capable, independent spirited practitioner need fear anything more than a temporary loss under such circumstances. The man who resorts to such tactics cannot, if the other be a patient right-minded man, enjoy more than a fleeting advantage; things will be sure to right themselves. But looking at the matter from the worst standpoint and admitting the business goes elsewhere, are the standing operators going to allow themselves to submit to the dictation of a man who knows nothing more of the matter than what he hears outside the veterinary profession and thus expose themselves to a loss of dignity—yes, even, I should think, self-respect. Pray, for what does a veterinary surgeon expend much money and time in qualifying himself for, if after all he is going to allow any ignoramus that comes along to tell him how he is to do his work—a pretty state of things certainly ! ! !

Personally, in all my experience, I have only met with one man who ever presumed to tell me how I was to do my work and I very soon put him in his right place. This gentleman objected to the method—torsion—that I adopted in castration, he wanted it done in the good old-fashioned way, with the actual cautery, and without an anæsthetic. I asked him in a somewhat stern voice, who was going to perform the operation, he or I? He replied, why you of course. "Then, said I, it will be done as I think proper," upon which he turned his back boiling over with temper; but being a man of the world he knew he was wrong, and as a business man that he had made a mistake. And I venture to affirm that such would be the experience of nine veterinary surgeons out of ten if they had the courage to stand upon the dignity which as members of a learned profesion they are entitled to. The idea of being told by an outsider, be he never so wealthy a client, how I am to do my work is repugnant to my sense of self respect, and so it should be to all my professional brethren. Depend upon it the man who is self reliant and properly independent in spirit will by due self-assertion reap the reward in money and in the honour of his clients and neighbours which such an one deserves. It is to be hoped that if the advocates of the standing operation cannot bring forward better reasons than the requirements of a client and such other arguments as they have advanced they will either recede from their untenable position or bring forward some more cogent argument in support of their peculiar views.—Yours faithfully,

J. SUTCLIFFE HURNDALL.

Sussex Villas, Kensington, W., 2 Sept., 1895.

[We have other letters upon this subject but they contain nothing new, and our space is limited.—Ed.]

HEIGHT OF HORSES.

SIR,

In last issue you have a letter on above, I should not take notice of an anonymous communication except for your Editorial foot note to which I feel bound to reply, as with it I do not agree.

No names of owner or veterinary surgeon or locality being by your anonymous correspondent. I very willingly take the responsibility of the following, which if not the case, referred to (as it probably is) is at least exactly on all fours. At a show recently held the owner of Second Prize Pony objects to the First on the ground that it exceeds 13 hands, the class height. I was deputed to measure the pony in question. The owner claimed the right to have the shoes removed to which I immediately assented, exactly as I should have assented had the objection been on the converse side that a horse did not attain a certain height without shoes. I assert that in cases of dispute as to actual height the correct way to measure is without shoes, and if both parties interested agree to measure with shoes on and an allowance for same then ½ an inch is a fair and reasonable allowance. Once you admit that in dispute shoes may remain on and you have the following disagreement as to what is a fair shoe, and may be called upon to measure in workable but obviously unfair shoes. Take off the shoes and you get what you are asked for—the height of the horse.—I beg to sign myself yours faithfully,

R. C. TRIGGER, F.R.C.V.S.

PUPILS OF REGISTERED PRACTITIONERS.

SIR,

A friend of mine has great cause for regret in having placed his son with an ignorant, and far from "up-to-date" existing veterinary practitioner.

I do not deny that there are a number of fairly good men who are not members of the College; yet, surely we must admit that, considering what is now expected from the veterinary profession, a youth is most likely subsequently to have to "unlearn" matter who has spent some time with the registered man who is not an M.R.C.V.S. *I entertain the greatest respect for our veterinary teaching institutions.* True they are not perfect—what human concerns are absolutely perfect? I maintain that the principle of placing youths with the men is not right. Much money has been spent, and long tedious years passed at some veterinary college and decidedly useful knowledge obtained, and does not all this deserve some return and advantages? I know of a veterinary practitioner who was formerly a cab-driver, and who is by no means an up-to-date veterinary surgeon, who receives youths during the college interim. It would be a very difficult matter, in fact, impossible for some registered men to distinguish a case of ozœma from glanders, and then to explain to his pupil the why and wherefore. It may be pleasant and amusing in the summer vacation to ride behind an old pony, seeing a few unimportant cases, listening to the same tales—so often told—of the great cures done by the would-be teacher; but this soon becomes monotonous and the youth soon finds he has made a mistake, and that he would have been better off in a busy practice with an up-to-date and properly qualified V.S., How many horses have been killed by uneducated yet registered veterinary men, giving large doses of aloes, in cases of influenza and affections of the lungs! Many to my own knowledge.—I am, sir, yours faithfully,

TIME WASTED.

[We have no sympathy to waste on these young men who apparently cannot look after themselves, and whose fathers are fools.—ED.]

THE PROFESSION AND THE GENERAL ELECTION.

SIR,

In your leading article of last Saturday you hit the general practitioners very hard about their supineness in not exerting themselves during the late Parliamentary election in bringing our grievances before the candidates. You say there are only 23 members that have taken any interest at all, but you qualify that by saying as far as you know. Now let me tell you what I have done, not for my own aggrandisement but to clear myself from the general condemnation which you bestow on the profession. I saw and spoke to eight candidates and put the question to them about a layman being at the head of our profession, and they were all opposed to it and promised that if it was brought forward in the House that they would support any measure for the removal of such an anomaly, there are now four of those candidates in Parliament and I have such faith in them that if ever the question is raised that they will give a good account of themselves and their promises. If every veterinary surgeon in the kingdom had only interviewed *one* candidate, whether urban or rural, how much further we, as a body, would have made them understand our present grievances (I say grievances because we have several) and get them remedied. How many others have interviewed M.P.'s that have not written to you? I hope there are hundreds.—Thanking you for insertion I remain, yours truly,

SUTOR.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Prof. Hobday, Messrs. H. D. Chorlton, J. S. Hurndall, J. Hart, R. C. Trigger, C. J. Reakes. "Time Wasted," "An Operator."

Guide to the Veterinary Profession, Annual Report A.V.D. The Western Gazette.